【Name of the Document】 Specification

【Title of the Invention】 PORTABLE RADIATION IMAGING SYSTEM AND A RADIATION IMAGE DETECTION DEVICE FOR SAID IMAGING SYSTEM

【Claims】

【Claim 1】 A portable radiation imaging system comprising:

a radiation source; and

a two dimensional radiation image detection device that records a radiation image by detecting the radiation emitted from said radiation source and is transmitted through a subject; wherein both said elements are structured to be carriable, further comprising:

an angular signal output means that outputs an angular signal which represents the degree of tilt of the radiation emitted from said radiation source in relation to the detection surface of said radiation image detection device; and

a tilt adjustment means that adjusts said tilt of the radiation in relation to the detection surface of the radiation image detection device to become substantially perpendicular by changing the tilt angle of said radiation source based on said angular signal output from said angular signal output means.

【Claim 2】 A portable radiation imaging system comprising:

a radiation source; and

a two dimensional radiation image detection device that records a radiation image by detecting the radiation emitted from said radiation source and is transmitted through a subject; wherein both said elements are structured to be carriable, further

comprising:

an angular signal output means that outputs an angular signal which represents the degree of tilt of the radiation emitted from said radiation source in relation to the detection surface of said radiation image detection device; and

a tilt adjustment means that adjusts said tilt of the radiation in relation to the detection surface of the radiation image detection device to become substantially perpendicular by changing the tilt angle of said radiation image detection device based on said angular signal output from said angular signal output means.

【Claim 3】 A portable radiation imaging system comprising:

a radiation source; and

a two dimensional radiation image detection device that records a radiation image by detecting the radiation emitted from said radiation source and is transmitted through a subject; wherein both said elements are structured to be carriable, further comprising:

a command means that generates an exposure command to said radiation source when the tilt of the radiation to be emitted from said radiation source in relation to the detection surface of said radiation image detection device is substantially perpendicular.

【Claim 4】 A radiation imaging system according to any one of claim 1, 2, or 3, further comprising a portable shift means that enables horizontal movement of the radiation source or the radiation image detection device.

【Claim 5】 A two dimensional radiation image detection

device capable of recording a radiation image equipped with an angular signal output means that outputs an angular signal which represents the degree of tilt of the radiation emitted from a radiation source in relation to the detection surface of said radiation image detection device.

【Claim 6】 A two dimensional radiation image detection device capable of recording a radiation image equipped with a command means that generates an exposure command to the radiation source when the tilt of the radiation to be emitted by a radiation source in relation to the detection surface of said radiation image detection device is substantially perpendicular.

【Detailed Description of the Invention】

【Field of the Invention】

The present invention relates to a portable radiation imaging system and a radiation image detection device for said imaging system.

【Prior Art】

Apparatuses for forming radiation images, constituting a radiation source and a radiation image detection device, such as X-ray imaging systems and CR systems (as disclosed in, for example, Japanese Unexamined Patent Publication No. 55(1980)-12429 and Japanese Unexamined Patent Publication No. 56(1981)-11395 by the present applicant, etc.) are widely used in the medical field.

Today, use of the aforementioned systems is not limited to the imaging rooms of hospitals (treatment settings). Said systems are being brought into the ICU ward to take a plurality of images